MEMO

DATE: March 3, 2005

TO: Transportation and Communications Committee

FROM: Philbert Wong
Assistant Regional Planner
213-236-1883
wongp@scag.ca.gov

SUBJECT: Measures to Reduce Truck Traffic at the San Pedro Bay Ports

SUMMARY:
Mr. Gill Hicks will present his analysis on the potential impacts of port truck trip reduction strategies.

BACKGROUND:
Mr. Gill Hicks, President, Gill V. Hicks and Associates, will be presenting his work on the potential impacts of port truck trip reduction strategies, which was conducted on behalf of the Ports of Los Angeles and Long Beach, and the Alameda Corridor Transportation Authority. In conducting this analysis, Mr. Hicks evaluated five strategies: extended gate hours, the increased use of on-dock rail, a virtual container yard, local shuttle trains, and a new near dock intermodal facility. In addition, a combination of all of the above strategies was evaluated for the years 2010 and 2030.

The impacts of these strategies have been measured according to the following criteria: impact on weekday port truck trips and weekday port truck miles of travel.

DOCS #107707

Costs and Benefits of Truck Trip Reduction Strategies

Integrated Work Program to Reduce Truck Traffic and Increase Rail Traffic
Presented to
SCAG Transportation and Communications Committee
March 3, 2005

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Projected Containerized Cargo Throughput Twenty-foot Equivalent Units (Millions of TEUs)

	2005	2010	2030
POLB	5.4	7.6	23.0
POLA	10.1	12.1	21.7
TOTAL	15.5	19.7	44.7

Compound Annual Growth Rate (CAGR) for both ports combined 2005 to 2030 is 5.4%.
Source: Port of Long Beach and Port of Los Angeles

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Key Assumptions for 2030

- Baseline: 25% on-dock rail, no extended gate hours, no virtual container yard, no shuttle trains, no new near dock yard, no SR 47 viaduct.
- Combined Scenario:
  - Extended Gate Hours with 68-32-0 Gate Shift (Day-Night-Hoot) and 20% Weekend
  - Virtual Container Yard: 10% empty re-use.
  - Shuttle service: eight 25-car eastbound trains per day five days per week (40 long trains/week)
  - Near-dock yard handling 2 million TEUs (1.08 million lifts) per year
  - SR 47 viaduct
  - 25% on-dock rail

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Weekday I-710 Port Trips 2005, 2010, 2030

Scenario	Total Trips	Percent Change from Base 2005
a) Base 2005	22,704	
b) Base 2010	27,009	**19.0%**
c) Combined Scenario 2010	20,337	**- 10.4%**
d) Base 2030	65,238	**187.3%**
e) Combined Scenario 2030	44,847	**97.5%**

*Impacts are not additive due to interaction among strategies.

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Daytime (6:00 a.m. to 7:00 p.m.) Weekday I-710 Port Trips 2005, 2010, 2030

Scenario	Total Trips	Percent Change from Base 2005
a) Base 2005	20,736	
b) Base 2010	24,611	**18.7%**
c) Combined Scenario 2010	15,263	**- 26.4%**
d) Base 2030	60,015	**189.4%**
e) Combined Scenario 2030	33,609	**62.1%**

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Cost Effectiveness Measures
Weekday Traffic (24-hours)

Strategy	Avg. Reduction in Weekday I-710 Truck Volume (2005-2030)	Net Savings (or Costs) Per Weekday Truck Trip Removed	Capital Costs per Weekday Truck Trip Removed
Shuttle Train	1,623	-$50	$35
VCY	1,650	$47	$0.25
SR 47	2,748 *	-$22	$22
Near-Dock Yd.	3,592 *	$16	$14
Ext. Gate Hrs.	5,562	-$126	$0.16
On-Dock Rail	6,680	$121	$35

* Average for 2010 through 2030

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Conclusions

- On-dock rail, near-dock rail, and virtual container yard result in significant economic savings to shippers due to reduced drayage costs and reduced handling of empty containers.
- Shuttle trains and extended gate hours result in additional net costs to shippers.
- In terms of effect on I-710 weekday truck reduction potential only, extended gate hours and increased on-dock rail are the most effective.
- In terms of net economic savings per truck removed, increased on-dock rail and the VCY are the most effective.
- In terms of capital costs per truck removed (ignoring operating costs or savings), extended gates and the VCY are the most effective.
- Even with implementation of all truck reduction strategies, I-710 truck volumes could increase substantially from 2005 to 2030 because of growth in trade.

Time Frame for Implementation

- VCY: 2005 (contract negotiations ongoing)
- Local Shuttle: Demo 2005, System 2005-2010
- Extended Gates: June 2005 start
- Near Dock Yard: By 2010
- SR 47: By 2010
- Increased On-dock: revised Rail Master Plan includes several projects through 2020; e.g., Pier B yard improvements 2005-2010.

Institutional/Operational Issues

- VCY: Trucker/steamship lines acceptance
- Local Shuttle: Railroads acceptance, rail vs. truck costs, mainline capacity
- Extended Gates: Warehouses and truckers acceptance, night noise ordinances
- Near Dock Yard: Community acceptance, tenant relocation
- SR 47: Community acceptance
- Increased On-dock: community acceptance, communications, timely car spotting, sharing by alliance partners, trains "dying" on line.